Ludmila Voskov, P.G., Project Manager
MC-136
Texas Commission on Environmental Quality
12100 Park 35 Circle
Austin TX 78753

Dear Ms. Voskov:

Thank you for your letter dated April 29, 2011, which provided comments on the Draft Feasibility Study (FS) for the Gulfco Marine Maintenance Superfund Site. These comments, and EPA's responses, are as follows:

Comment #1: It is unclear from the draft FS if the Texas Surface Water Quality Standards (TSWQS) are really being used to identify applicable or relevant and appropriate requirements. The Gulfco Site is adjacent to the Intracoastal Waterway, and this portion of the Intracoastal Waterway is a tidal water body. A tidal water body is by definition deemed to be a sustainable fishery (§307.3 (a)(67)). Therefore, surface water concentrations in the Intracoastal Waterway adjacent to the site should meet the fish-only criteria for human health as specified in the TSWQS (§307.6 (d)(2)(B)).

Response: Inclusion of the fish-only criteria for human health as specified in the TSWQS as an applicable or relevant and appropriate requirement will be included in the comments provided to the Gulfco Respondents regarding the Draft FS.

Comment #2: Based on the data presented in the Final Remedial Investigation (RI) Report, the Zone A groundwater bearing unit (GWBU) concentrations for various compounds exceeded their 1% aqueous solubility limits. The TCEQ analysis of monitoring data over time observed that some groundwater concentrations in the site monitoring wells were below detectable levels during the July 2006 - June 2007 time period. Then in June 2008, monitoring results showed groundwater concentrations in the same wells at levels that exceeded the respective contaminants of concern (COCs)'s 1% aqueous solubility limit (e.g., Figures 65, 72, 73; Final RI Report). Such an observation is an indication that Non-Aqueous Phase Liquid (NAPL) present in the Zone A GWBU is migrating, as described in the 2008 TCEQ Regulatory Guidance (Reference 1).

Response: A thin stained zone observed in the bottom of Zone A in several monitoring wells located south of the former impoundments indicated that NAPL is present and had migrated to those wells at some time in the past. However, no ground water samples from these wells or any other wells at the site showed any indications of a mobile NAPL in the samples, and neither was any organic sheen observed in any of the samples. Because no evidence of NAPL was observed in any of the ground water samples, including ones from wells with the staining, it is not likely that the NAPL is currently migrating. The impoundments were closed by removal of the water and most of the sludge, and then covered with a three foot thick clay cap in

1982, nearly 30 years ago. Several monitoring wells located south of the former impoundments did experience increasing contaminant concentrations, but these wells were also in the area of the stained zone in the bottom of Zone A. Because these wells are all located at different distances for the original source (the former impoundments) , it seems unlikely that these wells would all experience a migrating plume at about the same time some 30 years after the impoundments were closed. Rather, the variations in sample results are likely related to the proximity of the bottom stained NAPL material at those locations in combination with the wellbore conditions resulting from the drilling process. In any event, one of the remedy alternatives includes the long-term monitoring of down-gradient monitoring wells to insure that there are no migrating plumes of any kind. Previous samples from these down-gradient wells are non-detect, and neither do the down-gradient wells contain any staining. These conditions indicate that neither dissolved contaminant plumes nor NAPL have reached these wells to date.

Comment #3: The TCEQ Guidance, in Table 23, prescribes a "recovery only" response action for NAPL migrating in the saturated zone, and which is not in a Plume Management Zone.

Response: While it is agreed that NAPL recovery may be an appropriate response in cases of migrating NAPL, ground water samples indicate that there is no current NAPL migration. The lack of NAPL in any wells, and the thin stained zone, make it unlikely that there is any remaining mobile NAPL to recover.

Comment #4: The prescribed Texas Risk Reduction Program (TRRP) NAPL response action endpoint in this situation is achieved when groundwater concentrations are reduced to those below the 1% aqueous solubility limit for the respective COCS.

Response: As stated above, it is not apparent that mobile NAPL is present. Further, from a risk management standpoint, the shallow ground water at the site is salt water and not a potential source of drinking water. However, there is a potential threat to the surface water should the ground water plume continue migrating to the surface water, so prevention of that condition should be one of the remedial action objectives for this site.

Comment #5: Based on the discussion presented above, the prescribed TCEQ TRRP NAPL response action for migrating NAPL is most closely consistent with the implementation of groundwater recovery, Alternative 3 as described in Section 5 of the FS. However, while Alternative 3 recommends hydraulic control of groundwater via extraction wells, the stated system design criteria does not include NAPL recovery.

Response: As stated above, it is not apparent that mobile NAPL is present. The lack of NAPL in any wells, and the thin stained zone, make it unlikely that there is any remaining mobile NAPL to recover.

Comment #6: Because the NAPL recovery response action is limited to the specification in comment 4 above, the TCEQ believes that groundwater recovery is most appropriate for addressing the NAPL concern. However, the TCEQ considers that the current scope of Alternative 3 is not applicable and excessive in its design criteria. As such, the TCEQ recommends a scope modification to Alternative 3 that addresses the NAPL response action recovery and significantly reduces the scope and cost of the system design criteria to simply achieving the outstanding NAPL response action endpoint.

Response: As stated above, it is not apparent that mobile NAPL is present. The lack of NAPL in any wells, and the thin stained zone, make it unlikely that there is any remaining mobile NAPL to recover. Regarding the scope of the ground water recovery alternative, it is anticipated that the ground water plume will not continue migrating any significant distance for several reasons, including the relatively short distance it has migrated over the past 30 years, the silty nature of the water zones, and the active biological processes that are degrading the contaminants as described in the RI Report. However, that being said, should the plumes be found in the future to be migrating, then a robust recovery program may well be necessary due to the presence of some conditions that are not currently appreciated.

Please contact me at (214) 665-8318 if you have any questions, or wish to discuss this further.

Sincerely,

Gary Miller, P.E.
Remedial, Project Manager